

Practitioner's Docket No. 1392/10/19 PCT/US  
U.S. Serial No. 10/533,232

CHAPTER II
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IN THE UNITED STATES ELECTED OFFICE (EO/US)

PCT/US03/41200	23 December 2003 (23.12.03)	26 December 2002 (26.12.02)
International Application No.	International Filing Date	Priority Date Claimed

CELL PROLIFERATION-RELATED POLYPEPTIDES AND USES THEREFOR

Title of Invention

Syngenta Participations AG; Cooper, Bret  
Applicant(s)

Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
ATTENTION: EO/US

COMPLETION OF FILING REQUIREMENTS  
FOR INTERNATIONAL APPLICATION ENTERING U.S. NATIONAL STAGE  
IN U.S. ELECTED OFFICE (EO/US) UNDER 35 U.S.C. § 371

This replies to the Notice of Missing Requirements under 35 U.S.C. § 371 and 37 C.F.R. § 1.495 (FORM PCT/DO/EO/905).

A copy of FORM PCT/DO/EO/905 accompanies this response.

EXPRESS MAILING UNDER 37 C.F.R. § 1.10\*

(Express Mail label number is mandatory.)

(Express Mail certification is optional)

I hereby certify that this paper, along with any document referred to, is being deposited with the United States Postal Service on this date November 22, 2005 in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 as "Express Mail Post Office to Addressee" Mailing Label No. EV579134359US.

Stacie H. Boswell

Date: November 22, 2005

Stacie H. Boswell  
Signature of person certifying

**WARNING:** Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

**\*WARNING:** Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

### DECLARATION OR OATH

- I. The declaration or oath that was filed was determined to be defective. A new original oath or declaration is attached.

### SEQUENCE LISTING

- II. The computer readable form of the Sequence Listing that was filed with the subject application has been found not to comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821-1.825. A substitute computer readable form, a Substitute Sequence Listing on CD-R (in triplicate), a Statement Regarding Identity of Copies of Sequence Listing, and a Preliminary Amendment directing entry of the Substitute Sequence Listing into the application are enclosed herewith.

### III.

#### FEES

- I. Surcharge fees  
Surcharge for filing the oath or declaration  
later than thirty months from the priority  
date pursuant to § 1.495(c): \$130.00  
**Total Fees \$130.00**

### EXTENSION OF TIME

- IV. The proceedings herein are for a patent application. Accordingly, the provisions of 37 C.F.R. § 1.136(a) apply.

Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

### TOTAL FEE DUE

- V. The total fee due is:  
Completion fee(s) \$130.00  
**TOTAL FEE DUE \$130.00**

### PAYMENT OF FEES

### VI.


Authorization is hereby made to charge the amount of \$130.00 to Deposit Account No. 50-0426. Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

A duplicate of this request is attached.

Date: 11/22/2005

Reg. No.: 39,395  
Tel. No.: 001-919-493-8000  
Customer No.: 25297

11/29/2005 ATRANI 00000110 500426 10533232  
01 FC:1617 130.00 DA

  
\_\_\_\_\_  
Signature of Practitioner  
Arles A. Taylor, Jr.  
Jenkins, Wilson & Taylor, P.A.  
Suite 1400 University Tower  
3100 Tower Boulevard  
Durham, NC 27707  
UNITED STATES OF AMERICA



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/533,232	Bret Cooper	1392/10/19 PCT/US

INTERNATIONAL APPLICATION NO.
-------------------------------

PCT/US03/41200

I.A. FILING DATE	PRIORITY DATE
12/23/2003	12/26/2002

25297  
 JENKINS, WILSON & TAYLOR, P. A.  
 3100 TOWER BLVD  
 SUITE 1400  
 DURHAM, NC 27707

CONFIRMATION NO. 2354

371 FORMALITIES LETTER



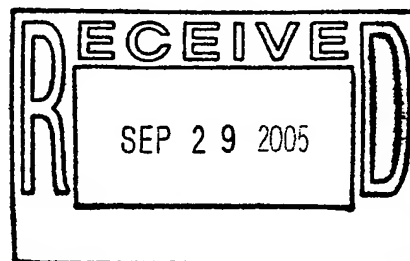
\*OC000000017076491\*

Date Mailed: 09/23/2005

### NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- Copy of the International Application filed on 04/29/2005
- Biochemical Sequence Diskette filed on 04/29/2005
- Oath or Declaration filed on 04/29/2005
- U.S. Basic National Fees filed on 04/29/2005
- Priority Documents filed on 04/29/2005
- Specification filed on 04/29/2005
- Claims filed on 04/29/2005
- Abstracts filed on 04/29/2005
- Drawings filed on 04/29/2005



The applicant needs to satisfy supplemental fees problems indicated below.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date. The current oath or declaration does not comply with 37 CFR 1.497(a) and (b) in that it:
  - is not executed in accordance with either 37 CFR 1.66 or 37 CFR 1.68.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.492(h) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

DOCKET DATES: 2/23/03, 3/23/06, 10/23/11  
 ASSIGNED ATTY: AAT/CPP  
 FILE NO. 1392/10/19 PCT/US  
 DOCKETED BY: JMD  
 DATE: 10.19.05

Total additional fees required for this application is \$130 for a Large Entity:

- **\$130 Surcharge.**
- This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 CFR 1.821(c) Applicant must provide an initial paper or compact disc copy of the "Sequence Listing", **as well as an amendment specifically directing its entry into the application** and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000).
- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

**For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:**

- **For Rules Interpretation, call (571) 272-0951**
- **For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.**
- **Send e-mail correspondence for Patentin Software Program Help @ [ebc@uspto.gov](mailto:ebc@uspto.gov)**

**ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.**

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

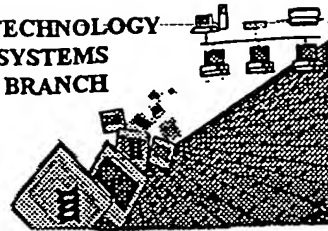
*A copy of this notice **MUST** be returned with the response.*

BARBARA A CAMPBELL

Telephone: (703) 308-9140 EXT 217

**PART 1 - ATTORNEY/APPLICANT COPY**

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/533,232	PCT/US03/41200	1392/10/19 PCT/US



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

10/533232

Source:

PG

Date Processed by STIC:

5/12/15

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Garry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):  
U.S. Patent and Trademark Office, 220 20<sup>th</sup> Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

# Raw Sequence Listing Error Summary

## ERROR DETECTED

## SUGGESTED CORRECTION

SERIAL NUMBER:

10533232

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1        **Wrapped Nucleics**  
**Wrapped Aminos** The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .J; this will prevent "wrapping."
- 2        **Invalid Line Length** The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3        **Misaligned Amino Numbering** The numbering under each 5<sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4        **Non-ASCII** The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5        **Variable Length** Sequence(s)        contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>.<223> section that some may be missing.
- 6        **PatentIn 2.0 "bug"** A "bug" in PatentIn version 2.0 has caused the <220>.<223> section to be missing from amino acid sequences(s)       . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>.<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>.<223> sections for Artificial or Unknown sequences.
- 7        **Skipped Sequences (OLD RULES)** Sequence(s)        missing. If intentional, please insert the following lines for each skipped sequence:  
(2) INFORMATION FOR SEQ ID NO X (insert SEQ ID NO where "X" is shown)  
(i) SEQUENCE CHARACTERISTICS (Do not insert any subheadings under this heading!)  
(ii) SEQUENCE DESCRIPTION SEQ ID NO X (insert SEQ ID NO where "X" is shown)  
This sequence is intentionally skipped  
  
Please also adjust the "(iii) NUMBER OF SEQUENCES" response to include the skipped sequences.
- 8        **Skipped Sequences (NEW RULES)** Sequence(s)        missing. If intentional, please insert the following lines for each skipped sequence:  
<210> sequence id number  
<400> sequence id number  
000
- 9        **Use of n's or Xaa's (NEW RULES)** Use of n's and/or Xaa's have been detected in the Sequence Listing.  
Per 1.823 of Sequence Rules, use of <220>.<223> is MANDATORY if n's or Xaa's are present.  
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10        **Invalid <213> Response** Per 1.823 of Sequence Rules, the only valid <213> responses are Unknown, Artificial Sequence, or scientific name (Genus/species). <220>.<223> section is required when <213> response is Unknown, or is Artificial Sequence.
- 11        **Use of <220>** Sequence(s)        missing the <220> "Feature" and associated numeric identifiers and responses.  
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  
(See "Federal Register," 0001/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12        **PatentIn 2.0 "bug"** Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13        **Misuse of n/Xaa** "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid.



PCT

## RAW SEQUENCE LISTING

DATE: 05/12/2005

PATENT APPLICATION: US/10/533,232

TIME: 08:24:04

Input Set : D:\1392-10-19 PCT.ST25.txt

Output Set: N:\CRF4\05122005\J533232.raw

3 <110> APPLICANT: Cooper, Bret  
 5 <120> TITLE OF INVENTION: CELL PROLIFERATION-RELATED POLYPEPTIDES AND USES THEREFOR  
 7 <130> FILE REFERENCE: 1392-10-19-2  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/533,232  
 C--> 9 <141> CURRENT FILING DATE: 2005-04-29  
 9 <150> PRIOR APPLICATION NUMBER: US 60/436,565  
 10 <151> PRIOR FILING DATE: 2002-12-26  
 12 <160> NUMBER OF SEQ ID NOS: 349  
 14 <170> SOFTWARE: PatentIn version 3.2  
 16 <210> SEQ ID NO: 1  
 17 <211> LENGTH: 885  
 18 <212> TYPE: DNA  
 19 <213> ORGANISM: Oryza sativa  
 22 <220> FEATURE:  
 23 <221> NAME/KEY: CDS  
 24 <222> LOCATION: (1)..(885)  
 26 <400> SEQUENCE: 1  
 27 atg gcg cct ccc tgc ggc gat gcc gcg gcg gct gcc tcc gcc gcg ccc 48  
 28 Met Ala Pro Pro Cys Gly Asp Ala Ala Ala Ala Ser Ala Ala Pro  
 29 1 5 10 15  
 31 ggc ctg gcc aac ctg ctc att cgc gaa ggc gcc ggc ctc cct tcg cgt 96  
 32 Gly Leu Ala Asn Leu Leu Ile Arg Glu Gly Ala Gly Leu Pro Ser Arg  
 33 20 25 30  
 35 ccc gaa cgg tac ccg cca ttc cgg ccc tgt act tct gat tcc ttt gct 144  
 36 Pro Glu Arg Tyr Pro Pro Phe Arg Pro Cys Thr Ser Asp Ser Phe Ala  
 37 35 40 45  
 39 cca atc tct agg gaa ggg gac gat att ccc ccc caa aaa aaa tcg gtt 192  
 40 Pro Ile Ser Arg Glu Gly Asp Asp Ile Pro Pro Gln Lys Lys Ser Val  
 41 50 55 60  
 43 tct tta cgc agc ggc ggc ggc ggc aat gcg gca gag agg gag gag ggc 240  
 44 Ser Leu Arg Ser Gly Gly Gly Gly Asn Ala Ala Glu Arg Glu Glu Gly  
 45 65 70 75 80  
 47 ggt gcg aac agg aac ggg aag aag gag aag acc ggg gcg cag agg atc 288  
 48 Gly Ala Asn Arg Asn Gly Lys Lys Glu Lys Thr Gly Ala Gln Arg Ile  
 49 85 90 95  
 51 acc ggg tgg ggg ctc cgt gag ttc agc aag ata gtt tct aag aaa gtt 336  
 52 Thr Gly Trp Gly Leu Arg Glu Phe Ser Lys Ile Val Ser Lys Lys Val  
 53 100 105 110  
 55 gag gcc aaa gga aga acc aca tat aat gag gtt gcc gat gag att ttt 384  
 56 Glu Ala Lys Gly Arg Thr Thr Tyr Asn Glu Val Ala Asp Glu Ile Phe  
 57 115 120 125  
 59 gcg gag ctg aag tcc att acg cag aac ggt ctg gag ttt gat gag aag 432  
 60 Ala Glu Leu Lys Ser Ile Thr Gln Asn Gly Leu Glu Phe Asp Glu Lys

Does Not Comply  
Corrected Diskette Needed

P.6

## RAW SEQUENCE LISTING

DATE: 05/12/2005

PATENT APPLICATION: US/10/533,232

TIME: 08:24:04

Input Set : D:\1392-10-19 PCT.ST25.txt

Output Set: N:\CRF4\05122005\J533232.raw

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61      130      135      140
63 aat att agg cgg agg gta tat gat gct ttc aat gtg ctc att gca att      480
64 Asn Ile Arg Arg Arg Val Tyr Asp Ala Phe Asn Val Leu Ile Ala Ile
65 145      150      155      160
67 cgt gtt att gca aaa gat aaa aag gag ata aag tgg atg ggc ctt act      528
68 Arg Val Ile Ala Lys Asp Lys Lys Glu Ile Lys Trp Met Gly Leu Thr
69      165      170      175
71 aat tat aga tac gaa aag ata cag aag ttg gag gaa gtt cac aaa gaa      576
72 Asn Tyr Arg Tyr Glu Lys Ile Gln Lys Leu Glu Glu Val His Lys Glu
73      180      185      190
75 ctc atc acc agg atc aag aat aag aag aag ctt ctc cag gaa att gaa      624
76 Leu Ile Thr Arg Ile Lys Asn Lys Lys Lys Leu Leu Gln Glu Ile Glu
77      195      200      205
79 aag cag ttt gat gac ctt cag aat att aca tta cgc aac cag gct agt      672
80 Lys Gln Phe Asp Asp Leu Gln Asn Ile Thr Leu Arg Asn Gln Ala Ser
81      210      215      220
83 cag agg cca gca gaa agt gtt aat ggc atc ctc ctt ccg ttc tta ttg      720
84 Gln Arg Pro Ala Glu Ser Val Asn Gly Ile Leu Leu Pro Phe Leu Leu
85 225      230      235      240
87 atc aag aca tcc cga aaa gca agg gtg gaa att gag att tcg gaa gat      768
88 Ile Lys Thr Ser Arg Lys Ala Arg Val Glu Ile Glu Ile Ser Glu Asp
89      245      250      255
91 tcg aag ttt gca cgg ttc gac ttc aac ggt gca cca ttc acc atg cat      816
92 Ser Lys Phe Ala Arg Phe Asp Phe Asn Gly Ala Pro Phe Thr Met His
93      260      265      270
95 gat gat gta tca atc ctt gaa gcc atc agg cgt aac aaa gga aga gct      864
96 Asp Asp Val Ser Ile Leu Glu Ala Ile Arg Arg Asn Lys Gly Arg Ala
97      275      280      285
99 ggc ctc tcc att cac cct taa      885
100 Gly Leu Ser Ile His Pro
101      290
104 <210> SEQ ID NO: 2
105 <211> LENGTH: 294
106 <212> TYPE: PRT
107 <213> ORGANISM: Oryza sativa
109 <400> SEQUENCE: 2
111 Met Ala Pro Pro Cys Gly Asp Ala Ala Ala Ala Ala Ser Ala Ala Pro
112 1      5      10      15
115 Gly Leu Ala Asn Leu Leu Ile Arg Glu Gly Ala Gly Leu Pro Ser Arg
116      20      25      30
119 Pro Glu Arg Tyr Pro Pro Phe Arg Pro Cys Thr Ser Asp Ser Phe Ala
120      35      40      45
123 Pro Ile Ser Arg Glu Gly Asp Asp Ile Pro Pro Gln Lys Lys Ser Val
124      50      55      60
127 Ser Leu Arg Ser Gly Gly Gly Gly Asn Ala Ala Glu Arg Glu Glu Gly
128 65      70      75      80
131 Gly Ala Asn Arg Asn Gly Lys Lys Glu Lys Thr Gly Ala Gln Arg Ile
132      85      90      95
135 Thr Gly Trp Gly Leu Arg Glu Phe Ser Lys Ile Val Ser Lys Lys Val

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## RAW SEQUENCE LISTING

DATE: 05/12/2005

PATENT APPLICATION: US/10/533,232

TIME: 08:24:04

Input Set : D:\1392-10-19 PCT.ST25.txt

Output Set: N:\CRF4\05122005\J533232.raw

136	100	105	110	
139	Glu Ala Lys Gly Arg Thr Thr Tyr Asn Glu Val Ala Asp Glu Ile Phe			
140	115	120	125	
143	Ala Glu Leu Lys Ser Ile Thr Gln Asn Gly Leu Glu Phe Asp Glu Lys			
144	130	135	140	
147	Asn Ile Arg Arg Arg Val Tyr Asp Ala Phe Asn Val Leu Ile Ala Ile			
148	145	150	155	160
151	Arg Val Ile Ala Lys Asp Lys Lys Glu Ile Lys Trp Met Gly Leu Thr			
152	165	170	175	
155	Asn Tyr Arg Tyr Glu Lys Ile Gln Lys Leu Glu Glu Val His Lys Glu			
156	180	185	190	
159	Leu Ile Thr Arg Ile Lys Asn Lys Lys Lys Leu Leu Gln Glu Ile Glu			
160	195	200	205	
163	Lys Gln Phe Asp Asp Leu Gln Asn Ile Thr Leu Arg Asn Gln Ala Ser			
164	210	215	220	
167	Gln Arg Pro Ala Glu Ser Val Asn Gly Ile Leu Leu Pro Phe Leu Leu			
168	225	230	235	240
171	Ile Lys Thr Ser Arg Lys Ala Arg Val Glu Ile Glu Ile Ser Glu Asp			
172	245	250	255	
175	Ser Lys Phe Ala Arg Phe Asp Phe Asn Gly Ala Pro Phe Thr Met His			
176	260	265	270	
179	Asp Asp Val Ser Ile Leu Glu Ala Ile Arg Arg Asn Lys Gly Arg Ala			
180	275	280	285	
183	Gly Leu Ser Ile His Pro			
184	290			
187	<210> SEQ ID NO: 3			
188	<211> LENGTH: 1041			
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190	<213> ORGANISM: Oryza sativa			
193	<220> FEATURE:			
194	<221> NAME/KEY: CDS			
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199	Met Val Ser Gly Ala Ala His Ser Ala Ser Thr Ser Gly Gly Gly Gly			
200	1 5 10 15			
202	ggg agc gag ggc tcc ccc acc ggc cgc gcc gcg ccg ggc atg cag ggc	96		
203	Gly Ser Glu Gly Ser Pro Thr Gly Arg Ala Ala Pro Gly Met Gln Gly			
204	20 25 30			
206	ggc ggc agc gcc gcc acg ccc gcc gcc tcg gcc tcc gcg tcc acg ccg	144		
207	Gly Gly Ser Ala Ala Thr Pro Ala Ala Ser Ala Ser Ala Ser Thr Pro			
208	35 40 45			
210	gcc agc gag acc acc gtc gcc cgc cgc ctc gac ggc ctc gac atc cag	192		
211	Ala Ser Glu Thr Thr Val Ala Arg Arg Leu Asp Gly Leu Asp Ile Gln			
212	50 55 60			
214	ggc gac gac gcg ccc tcg cag ccc gcc acg agc aag aag aaa aaa	240		
215	Gly Asp Asp Ala Pro Ser Ser Gln Pro Ala Thr Ser Lys Lys Lys Lys			
216	65 70 75 80			
218	agg ggg cct gga aca cgt gca acg ggc cct gac aag ggt ggc cgt gga	288		

## RAW SEQUENCE LISTING

DATE: 05/12/2005

PATENT APPLICATION: US/10/533,232

TIME: 08:24:04

Input Set : D:\1392-10-19 PCT.ST25.txt

Output Set: N:\CRF4\05122005\J533232.raw

219	Arg	Gly	Pro	Gly	Thr	Arg	Ala	Thr	Gly	Pro	Asp	Lys	Gly	Gly	Arg	Gly	
220					85					90					95		
222	ttg	cgc	caa	ttt	agt	atg	aaa	gtt	tgt	gag	aaa	gtt	gaa	agc	aaa	ggg	336
223	Leu	Arg	Gln	Phe	Ser	Met	Lys	Val	Cys	Glu	Lys	Val	Glu	Ser	Lys	Gly	
224				100					105					110			
226	aga	aca	acc	tac	aac	gag	gtg	gca	gat	gag	ctt	gta	gct	gag	ttt	gca	384
227	Arg	Thr	Thr	Tyr	Asn	Glu	Val	Ala	Asp	Glu	Leu	Val	Ala	Glu	Phe	Ala	
228				115					120					125			
230	gac	ccc	aac	aat	aat	ttt	gca	tca	cct	gat	cct	gac	aac	cct	aac	aca	432
231	Asp	Pro	Asn	Asn	Asn	Phe	Ala	Ser	Pro	Asp	Pro	Asp	Asn	Pro	Asn	Thr	
232		130					135					140					
234	cca	caa	ttt	gat	gag	aaa	aat	ata	cga	cga	agg	gtt	tat	gat	gca	ttg	480
235	Pro	Gln	Phe	Asp	Glu	Lys	Asn	Ile	Arg	Arg	Arg	Val	Tyr	Asp	Ala	Leu	
236	145					150				155					160		
238	aat	gtc	ctg	atg	gct	atg	gat	att	ata	tct	aag	gat	aaa	aag	gaa	att	528
239	Asn	Val	Leu	Met	Ala	Met	Asp	Ile	Ile	Ser	Lys	Asp	Lys	Lys	Glu	Ile	
240				165					170					175			
242	cag	tgg	aag	ggc	ttg	cct	cgg	aca	agt	atg	agc	gat	gtt	gaa	gaa	ttg	576
243	Gln	Trp	Lys	Gly	Leu	Pro	Arg	Thr	Ser	Met	Ser	Asp	Val	Glu	Glu	Leu	
244				180					185					190			
246	aag	aca	gag	atc	atc	gga	ctg	aaa	ggt	agg	atc	gac	aag	aaa	aat	gca	624
247	Lys	Thr	Glu	Ile	Ile	Gly	Leu	Lys	Gly	Arg	Ile	Asp	Lys	Lys	Asn	Ala	
248				195					200				205				
250	tat	ttg	cag	gag	tta	gaa	gat	caa	ttt	gta	ggt	ctt	caa	aac	ttg	gca	672
251	Tyr	Leu	Gln	Glu	Leu	Glu	Asp	Gln	Phe	Val	Gly	Leu	Gln	Asn	Leu	Ala	
252		210					215					220					
254	cag	cga	aac	gag	cag	ctt	tat	ggt	tca	gga	aat	gct	cct	tca	gga	gga	720
255	Gln	Arg	Asn	Glu	Gln	Leu	Tyr	Gly	Ser	Gly	Asn	Ala	Pro	Ser	Gly	Gly	
256	225					230			235						240		
258	gtg	gca	ttg	cca	ttt	ata	ttg	gtg	cag	aca	cgt	cct	cat	gct	aca	gta	768
259	Val	Ala	Leu	Pro	Phe	Ile	Leu	Val	Gln	Thr	Arg	Pro	His	Ala	Thr	Val	
260				245					250					255			
262	gaa	gtg	gag	ata	tca	gaa	gat	atg	cag	ctg	gtg	cat	ttt	gat	ttc	aat	816
263	Glu	Val	Glu	Ile	Ser	Glu	Asp	Met	Gln	Leu	Val	His	Phe	Asp	Phe	Asn	
264				260					265					270			
266	agc	act	cca	ttt	gaa	ctg	cat	gac	gat	tcc	ttt	gta	ctg	aaa	gca	ttg	864
267	Ser	Thr	Pro	Phe	Glu	Leu	His	Asp	Asp	Ser	Phe	Val	Leu	Lys	Ala	Leu	
268				275				280					285				
270	ggg	ttc	tct	ggc	aaa	gaa	cca	gat	gat	acg	caa	gcc	tgg	gtt	gga	aat	912
271	Gly	Phe	Ser	Gly	Lys	Glu	Pro	Asp	Asp	Thr	Gln	Ala	Trp	Val	Gly	Asn	
272		290					295					300					
274	gga	ggt	gag	tgc	tca	acc	aca	cct	atc	tat	cat	caa	tca	ccc	caa	gtt	960
275	Gly	Gly	Glu	Cys	Ser	Thr	Thr	Pro	Ile	Tyr	His	Gln	Ser	Pro	Gln	Val	
276	305					310					315				320		
278	gcg	agg	cca	aac	gga	gtt	aga	cta	cca	aca	tcg	ccc	cct	att	ccc	ggt	1008
279	Ala	Arg	Pro	Asn	Gly	Val	Arg	Leu	Pro	Thr	Ser	Pro	Pro	Ile	Pro	Gly	
280				325					330					335			
282	ata	ctt	aaa	ggg	cgt	gtc	aag	cat	gaa	cat	tag						1041
283	Ile	Leu	Lys	Gly	Arg	Val	Lys	His	Glu	His							

## RAW SEQUENCE LISTING

DATE: 05/12/2005

PATENT APPLICATION: US/10/533,232

TIME: 08:24:04

Input Set : D:\1392-10-19 PCT.ST25.txt

Output Set: N:\CRF4\05122005\J533232.raw

```

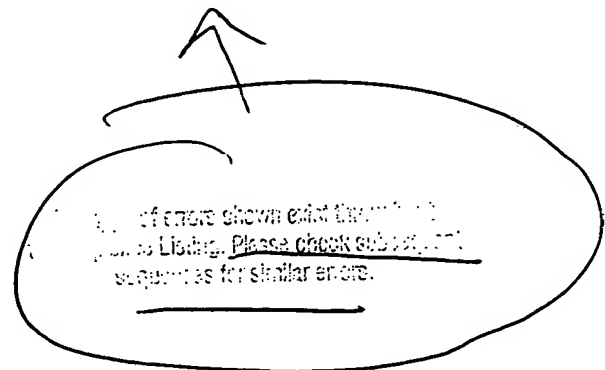
284          340          345
287 <210> SEQ ID NO: 4
288 <211> LENGTH: 346
289 <212> TYPE: PRT
290 <213> ORGANISM: Oryza sativa
292 <400> SEQUENCE: 4
294 Met Val Ser Gly Ala Ala His Ser Ala Ser Thr Ser Gly Gly Gly Gly
295 1          5          10          15
298 Gly Ser Glu Gly Ser Pro Thr Gly Arg Ala Ala Pro Gly Met Gln Gly
299          20          25          30
302 Gly Gly Ser Ala Ala Thr Pro Ala Ala Ser Ala Ser Ala Thr Pro
303          35          40          45
306 Ala Ser Glu Thr Thr Val Ala Arg Arg Leu Asp Gly Leu Asp Ile Gln
307          50          55          60
310 Gly Asp Asp Ala Pro Ser Ser Gln Pro Ala Thr Ser Lys Lys Lys Lys
311 65          70          75          80
314 Arg Gly Pro Gly Thr Arg Ala Thr Gly Pro Asp Lys Gly Gly Arg Gly
315          85          90          95
318 Leu Arg Gln Phe Ser Met Lys Val Cys Glu Lys Val Glu Ser Lys Gly
319          100         105         110
322 Arg Thr Thr Tyr Asn Glu Val Ala Asp Glu Leu Val Ala Glu Phe Ala
323          115         120         125
326 Asp Pro Asn Asn Asn Phe Ala Ser Pro Asp Pro Asp Asn Pro Asn Thr
327          130         135         140
330 Pro Gln Phe Asp Glu Lys Asn Ile Arg Arg Arg Val Tyr Asp Ala Leu
331 145          150         155         160
334 Asn Val Leu Met Ala Met Asp Ile Ile Ser Lys Asp Lys Lys Glu Ile
335          165         170         175
338 Gln Trp Lys Gly Leu Pro Arg Thr Ser Met Ser Asp Val Glu Leu
339          180         185         190
342 Lys Thr Glu Ile Ile Gly Leu Lys Gly Arg Ile Asp Lys Lys Asn Ala
343          195         200         205
346 Tyr Leu Gln Glu Leu Glu Asp Gln Phe Val Gly Leu Gln Asn Leu Ala
347          210         215         220
350 Gln Arg Asn Glu Gln Leu Tyr Gly Ser Gly Asn Ala Pro Ser Gly Gly
351 225          230         235         240
354 Val Ala Leu Pro Phe Ile Leu Val Gln Thr Arg Pro His Ala Thr Val
355          245         250         255
358 Glu Val Glu Ile Ser Glu Asp Met Gln Leu Val His Phe Asp Phe Asn
359          260         265         270
362 Ser Thr Pro Phe Glu Leu His Asp Asp Ser Phe Val Leu Lys Ala Leu
363          275         280         285
366 Gly Phe Ser Gly Lys Glu Pro Asp Asp Thr Gln Ala Trp Val Gly Asn
367          290         295         300
370 Gly Gly Glu Cys Ser Thr Thr Pro Ile Tyr His Gln Ser Pro Gln Val
371 305          310         315         320
374 Ala Arg Pro Asn Gly Val Arg Leu Pro Thr Ser Pro Pro Ile Pro Gly
375          325         330         335
378 Ile Leu Lys Gly Arg Val Lys His Glu His

```

<210> 59  
<211> 726  
<212> DNA  
<213> Oryza sativa  
<220>  
<223>  
<220>  
<221> CDS  
<222> (1)..(726)

INVALID RESPONSE  
MANDATORY <220> <223>  
PLEASE EXPLAIN LOCATION OF  
"XAA"  
SEE ITEM # 9 ERROR SUMMARY SHEET.

<400> 59  
atg ggg agg ggg aag ata gtg ata agg agg ata gac aac tcg acg agc 48  
Met Gly Arg Gly Lys Ile Val Ile Arg Arg Ile Asp Asn Ser Thr Ser  
1 5 10 15  
agg cag gtg acg ttc tcg aag cgt cgg aac ggg ctt ctg aag aag gcg 96  
Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala  
20 25 30  
aag gag cta tcc atc ctc tgc gat gcg gag gtc ggc ctt gtc gtc ttc 144  
Lys Glu Leu Ser Ile Leu Cys Asp Ala Glu Val Gly Leu Val Val Phe  
35 40 45  
tcc agc acc ggc ass ctc tat gag ttc tcc agc acc aac atg aaa act 192  
Ser Ser Thr Gly Xaa Leu Tyr Glu Phe Ser Ser Thr Asn Met Lys Thr  
50 55 60



RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/533,232

DATE: 05/12/2005  
TIME: 08:24:05

Input Set : D:\1392-10-19 PCT.ST25.txt  
Output Set: N:\CRF4\05122005\J533232.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq# 5; N Pos. 702  
Seq# 5; Xaa Pos. 234  
Seq# 6; Xaa Pos. 234  
Seq# 59; Xaa Pos. 53  
Seq# 60; Xaa Pos. 53  
Seq# 79; Xaa Pos. 71  
Seq# 80; Xaa Pos. 71  
Seq# 111; Xaa Pos. 23,56,57,104,126  
Seq# 112; Xaa Pos. 23,56,57,104,126  
Seq# 121; Xaa Pos. 64  
Seq# 122; Xaa Pos. 64  
Seq# 137; Xaa Pos. 34  
Seq# 138; Xaa Pos. 34  
Seq# 151; Xaa Pos. 956,961,1086  
Seq# 152; Xaa Pos. 956,961,1086  
Seq# 161; Xaa Pos. 264  
Seq# 162; Xaa Pos. 264  
Seq# 293; Xaa Pos. 226  
Seq# 294; Xaa Pos. 226  
Seq# 303; Xaa Pos. 2,6  
Seq# 304; Xaa Pos. 2,6

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:347

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/533,232

DATE: 05/12/2005

TIME: 08:24:05

Input Set : D:\1392-10-19 PCT.ST25.txt

Output Set: N:\CRF4\05122005\J533232.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No  
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:672  
M:341 Repeated in SeqNo=5  
L:623 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:224  
L:5577 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:59  
L:5577 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:192  
L:5653 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:48  
L:7834 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:79  
L:7834 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:79 after pos.:240  
L:7990 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:80 after pos.:64  
L:11109 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:111  
L:11109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111 after pos.:96  
M:341 Repeated in SeqNo=111  
L:11285 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:112 after pos.:16  
M:341 Repeated in SeqNo=112  
L:12215 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:121  
L:12215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:121 after pos.:192  
L:12307 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:122 after pos.:48  
L:13746 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:137  
L:13746 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137 after pos.:144  
L:13994 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138 after pos.:32  
L:16632 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:151  
L:16632 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151 after pos.:2880  
M:341 Repeated in SeqNo=151  
L:16970 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:152 after pos.:944  
M:341 Repeated in SeqNo=152  
L:17914 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:161  
L:17914 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:161 after pos.:816  
L:18026 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:162 after pos.:256  
L:31473 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:293  
L:31473 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:293 after pos.:720  
L:31553 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:294 after pos.:224  
L:32309 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:303  
L:32309 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:303 after pos.:48  
L:32606 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:304 after pos.:0